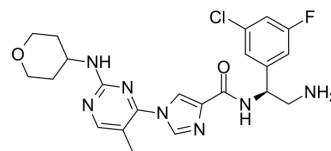


ASN007

Cat. No.:	HY-136579		
CAS No.:	2055597-12-9		
Molecular Formula:	C ₂₂ H ₂₅ ClFN ₇ O ₂		
Molecular Weight:	473.93		
Target:	ERK		
Pathway:	MAPK/ERK Pathway; Stem Cell/Wnt		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 200 mg/mL (422.00 mM; Need ultrasonic)

Concentration	Mass		
	1 mg	5 mg	10 mg
1 mM	2.1100 mL	10.5501 mL	21.1002 mL
5 mM	0.4220 mL	2.1100 mL	4.2200 mL
10 mM	0.2110 mL	1.0550 mL	2.1100 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

- Add each solvent one by one: 0.5% MC >> 0.5% Tween-80
Solubility: 6.67 mg/mL (14.07 mM); Suspended solution; Need ultrasonic
- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
Solubility: ≥ 2.08 mg/mL (4.39 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
Solubility: ≥ 2.08 mg/mL (4.39 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
Solubility: ≥ 2.08 mg/mL (4.39 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

ASN007 (ERK-IN-3) is a potent and orally active inhibitor of ERK. ASN007 inhibits ERK1/2 with low single-digit nM IC₅₀ values. ASN007 can be used for the research of cancers driven by RAS mutations^[1].

IC₅₀ & Target

ERK1	ERK2
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In Vitro	ASN007 (ERK-IN-3) inhibits the phosphorylation of ERK1/2 substrates such as RSK1, FRA1, and Elk1 in various cell lines ^[1] . ASN007 shows single-digit nanomolar antiproliferative activity that is selective for MAPK-pathway dependent cancer cell lines ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	ASN007 (ERK-IN-3) (daily p.o.) inhibits tumor growth in multiple BRAF and KRAS mutant xenograft models in mice and was well tolerated at efficacious doses ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Sanjeeva PR, et, al. Abstract B150: ASN007, a novel oral ERK inhibitor, shows robust antitumor activity in RAS mutant cancer models. Molecular Cancer Therapeutics. 2018 Jan; 17(1).

Caution: Product has not been fully validated for medical applications. For research use only.

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